



Case report

A case series of tuberculosis related sudden death

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ARTICLE INFO

Article history:

Received 1 February 2010

Received in revised form

23 September 2010

Accepted 29 September 2010

Available online 18 October 2010

Keywords:

Sudden death

Tuberculosis

Miliary tuberculosis

ABSTRACT

Tuberculosis is one of the most common infectious diseases in India. Deaths due to its complications are rare but reported. Sudden deaths due to tuberculosis constitute a major public health problem in the developing countries. These cases pose a danger to the community both during life as well as after death. Three cases of sudden death due to tuberculosis are discussed.

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1. Introduction

Even in this modern era with advanced diagnostic and treatment facilities tuberculosis retains its position as the major infectious respiratory disease. Most of the deaths due to tuberculosis are certified natural and no medicolegal issue exists. Problem arises when the deceased is found under suspicious circumstances or dies an unattended death. These cases are branded as sudden deaths and medicolegal autopsies are the rule to unravel the mystery.

Acute deaths due to tuberculosis are uncommon; however since it is such a common disease in India its causal relationship with sudden death should be kept in mind. Pulmonary tuberculosis is treatable but deaths due to its complications are on the rise due to its association with HIV infection or evolution of multi drug resistant tubercle bacilli strains.¹ We present 3 cases of death due to tuberculosis diagnosed on autopsy.

2. Case series

2.1. Case 1

A 40-year-old moderately built and poorly nourished male was found dead at a bus stand. No external injuries were present on the body. Lungs, liver and spleen were enlarged, showed whitish tubercles on surface and congestion on cut section. Histopathology showed tuberculous granulomas in brain, lungs, liver, spleen,

kidney and heart (Fig. 1). Cause of death was opined as disseminated tuberculosis.

2.2. Case 2

A 50-year-old unknown moderately built and emaciated male was found dead in front of the town hall. No external injuries were present on the body. Lungs, spleen and kidney showed whitish tubercles. Cut section of lungs showed pus. Histopathology of lung, liver, kidney and spleen showed tubercular granuloma (Fig. 2). Cause of death was opined as disseminated tuberculosis.

2.3. Case 3

A 35-year-old male vomited blood and collapsed while walking in the city. He was immediately shifted to hospital, Manipal where he was declared brought dead. No external injuries were present on the body. Blood was present in airways. Right lung showed caseating necrosis in entire upper lobe and upper part of lower lobe (Fig. 3). Left lung and other internal organs were unremarkable. Histopathology of lung was diagnostic of tuberculosis (Fig. 4). Cause of death was opined as pulmonary tuberculosis.

3. Discussion

Tuberculosis (TB) remains a major respiratory cause of morbidity and mortality worldwide and has been identified as a 'global emergency' by the WHO. One third of the world's current populations have been infected with *Mycobacterium tuberculosis*, and

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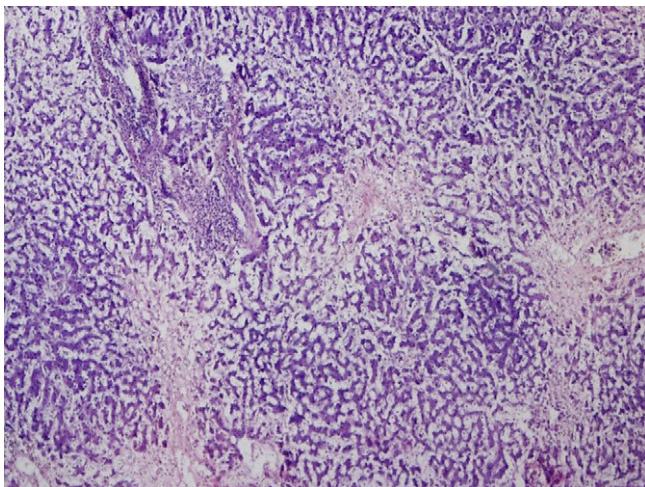


Fig. 1. Section of liver showing tubercular granuloma, 10×, H&E stain.

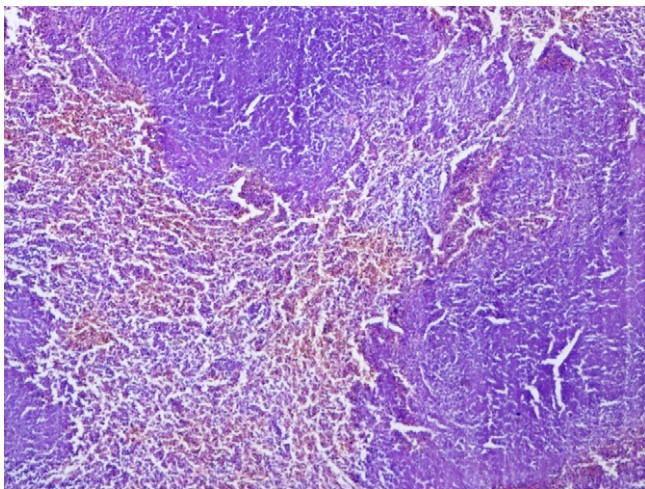


Fig. 2. Section of spleen showing tubercular granuloma, 10×, H&E stain.

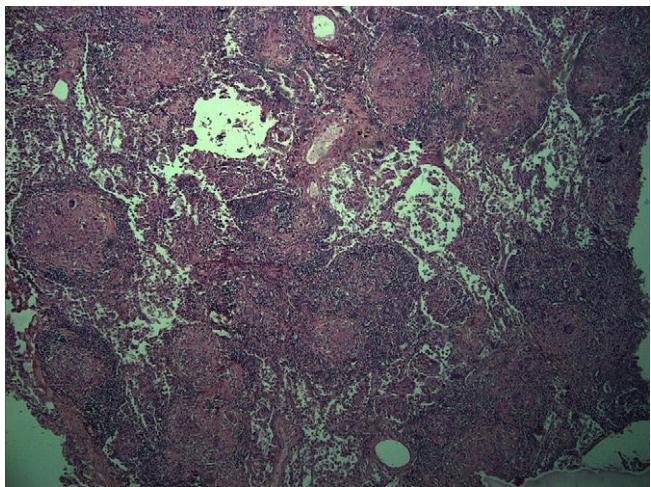


Fig. 4. Section of lung showing tubercular granuloma, 10×, H&E stain.

new infections occur at a rate of one per second.² Tuberculosis is a chronic bacterial granulomatous infection caused by an acid fast bacterium *M. tuberculosis*. Miliary tuberculosis is due to lymphohematogenous spread of tuberculous infection from primary focus. It may be systemic or may involve individual organs.³

Suspicious sudden tuberculosis deaths constitute a public health problem in most of the developing countries. Most of the cases pose a danger to the community, both during life as well as after death. Medicolegal issues arise when a person is found dead in an unattended environment. Public suspicion is raised as to cause of death and postmortem becomes a necessity to solve the mystery. Rarely, can they raise a medicolegal issue as in public opinion they can be easily diagnosed and treated.

In our cases all three individuals were found dead in a public place and obvious doubts were raised. Postmortem examination was suggestive of natural death. Viscera was preserved and examined to rule out poisoning. As etiology was confirmed by histopathological examination microbiological investigations were not undertaken. Tuberculosis is a treatable disease but its fatality is attributed to its association with HIV infection and to immuno compromised state of patients with immunosuppressive therapy.⁴

In present cases HIV testing was done on deceased and was found negative. Contact testing was not undertaken.

Conflict of interest

None declared.

Funding

No source of support in the form of grants.

Ethical approval

None declared.

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Fig. 3. Cut section of lung showing caseation.